



Arsenic in Water Technology Vendors Forum and Theme Session

**New Mexico Environmental Health
Conference
Albuquerque, NM**

October 19 - 20, 2004



Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company,
for the United States Department of Energy's National Nuclear Security Administration
under contract DE-AC04-94AL85000.





Background

- **Recent reduction of drinking water Maximum Concentration Level (MCL) for arsenic from 50 ppb to 10 ppb was intended to reduce incidence of bladder cancer and other cancers in US.**
- **Southwestern United States is characterized by high and variable background levels for arsenic**
- **Estimated national annual costs of implementing 10 ppb MCL range from \$165M to \$605M to save 7 – 33 lives.**
 - **\$5M – \$23.9M /life saved**
 - **\$1.3M – \$6.6M/ year of life saved**

Can innovative technologies reduce cost and lead to overall improvements in water quality?



New Mexico Environmental Health Conference (October 2003)

- **Theme session to introduce Partnership**
- **Vendors Forum to evaluate commercial technologies**
- **Technologies selected for 2004 pilots**
 - Magnesium Elektron Inc. (Isolux - Zr-oxide)
 - Hydroglobe (MetSorb - nanocrystalline Ti-oxide)
 - AdEdge (Granular Fe-oxide)
 - Filtronics (Coagulation/Electromedia filtration)
 - Kinetico (Macrolite media)



2004 NMEHC Program Concept

- **October 19 AM: Theme session with invited speakers**
- **Vendors Forum**
 - October 19 PM: presentations by vendors
 - October 20: interview of vendors by technical teams
- **Exhibit Hall: October 18 - 19**

**Organized by Sandia National Laboratories for the
Arsenic Water Technology Partnership**

**Forum Objective: select technologies for 2004-2005 pilot
demonstrations of innovative As removal technologies
for drinking water.**



Countdown to Compliance Session

- **Overview of Issues Related to Arsenic in New Mexico Drinking Water**
 - Exposure assessment/Health effects tracking
 - Implementation of new Standard
 - Arsenic occurrence and solutions on Navajo Nation
- **Pilot Studies conducted by EPA/NSF and Engineering Firms**
 - Environmental Technology Verification (ETV)
 - Narasimhan Consulting, Inc. in New Mexico and Arizona
- **Update on Arsenic Water Technology Partnership**
 - AwwaRF Bench-scale Research Program
 - Sandia Pilot Demonstration Project
 - WERC Cost Model Analysis